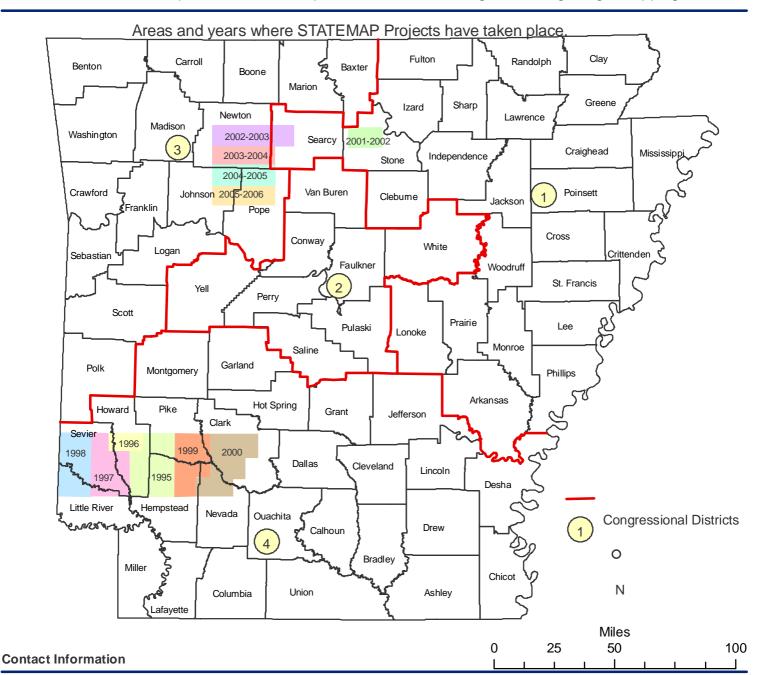






## **National Cooperative Geologic Mapping Program**

STATEMAP Component: States compete for federal matching funds for geologic mapping



**Arkansas Geological Commission** 

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http://www.state.ar.us/agc/agc.htm

U.S.G.S. Geologic Mapping Program Office

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http://hcgmp.usgs.gov/

## SUMMARY OF STATEMAP GEOLOGIC MAPPING PROGRAM IN ARKANSAS

Year	Project Title	State	Federal	Total Project
		Dollars	Dollars	Dollars
1995-96	Murfreesboro, Nathan, Nashville, McCaskill,	\$33,987	\$25,000	\$58,987
	Mineral Springs North, Mineral Springs South,			
	Columbus, and Washington 7.5-min Quadrangles			
1996-97	Center Point and Dierks 7.5-min Quadrangles	\$13,037	\$10,000	\$23,037
1997-98	Geneva, Lockesburg, Silver Ridge, Falls	\$43,410	\$41,210	\$84,620
	Chapel, and Ben Lomond 7.5-min Quadrangles			
1998-99	DeQueen, Chapel Hill, Horatio,	\$40,889	\$40,825	\$81,714
	Cerrogordo, Arkinda, Winthrop 7.5-min			
	Quadrangles			
1999-2000	Antoine, Delight, Pisgah, Piney Grove,	\$38,327	\$38,311	\$76,638
	and Blevins 7.5-min Quadrangles			
2000-2001	Arkadelphia, Hollywood, Okolona North,	\$42,292	\$38,110	\$80,402
	Okolona South, Gurdon, Prescott East, and			
	Prescott West 7.5 Quadrangles			
2001-2002	Onia and Fifty-Six 7.5 Quadrangles	\$46,437	\$45,377	\$91,814
2002-2003	Parthenon, Mt. Judea, Eula, and Snowball 7.5-min	\$52,160	\$50,595	\$114,951
	Quadrangles			
2003-2004	Deer, Lurton, and Moore 7.5-min Quadrangles	\$49,760	\$48,865	\$98,625
2004-2005	Fort Douglas, Sand Gap and Smyrna 7.5 min Quadrangles	\$64,138	\$64,138	\$128,276
	TOTALS	\$326,312	\$313,293	\$651,801

The Arkansas Geological Comission is an active participant in the STATEMAP part of the National Cooperative Geological Mapping Program (NCGMP), having participated since 1995. Arkansas recognizes the importance of geological mapping as a tool for decision makers who have a need to understand the nature, composition, and distribution of earth materials.

Geologic mapping has been and is an important information gathering tool. This information is used for informed decision making and for the protection of the state's resources. The more accurate the geologic information is the better developers and planners decision making abilities can be to protect the environment and serve the public equally.

A new shale gas play in Arkansas is currently being developed by various energy companies from the eastern Arkoma Basin into the Mississippi Embayment. The key target for this gas play is the Fayetteville Shale, Mississippian, which is geologically equivalent to the Caney Shale in Oklahoma and the Barnett Shale in Texas. The Fayetteville Shale outcrops in the southern portion of the Ozark Plateaus in areas that have been previously mapped in STATEMAP projects. Geologists from various energy companies have visited the Arkansas Geological Commission for accurate surface geologic maps depicting the Fayetteville Shale outcrop area. They needed optimum outcrops with complete sections of the Fayetteville Shale to measure sections and collect samples for geochemical and depositional environment analyses. The maps are especially helpful for regional analysis and tying surface mapping to the subsurface.

We have assisted Chesapeake energy Corporation by providing location of key outcrops from three previously mapped quadrangles: the Snowball Quadrangle (STATEMAP 2003), and the Onia and Fifty Six Quadrangles (STATEMAP 2002). Southwestern Energy has requested all of our published STATEMAP quadrangles since 2002, a total of 12, in order to study the Fayetteville Shale. They are particularly interested in tying the mapped surface faults south into the subsurface.

Since Arkansas began its participation in the STATEMAP Program, it has completed 45 surficial maps at a scale of 1:24,000. Three more 7.5 minute quadrangles in north-central Arkansas will be completed by July 1, 2006.